



PATENT  
Attorney Docket 54800-5013-01

THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of: **Roderic M. K. Dale**

Application No. **09/669,033**

Filed: **September 25, 2000**

For: **Method for Detecting Nucleic Acid Sequences**

Group Art Unit: 1631

Examiner: **Young J. Kim** TECH CENTER 1600/2900

**AMENDMENT UNDER 37 C.F.R. 1.111**

This Amendment is filed in response to the Office Action dated February 6, 2002 the period for response to which has been extended to August 6, 2002 by the accompanying petition for a three-month extension of time. An authorization to charge the deposit account of the undersigned to cover the cost of the three-month extension of time is enclosed.

Please amend this application as follows:

**In the claims:**

**Please cancel claims 6-17 and add the following claims:**

18. A method for detecting nucleic acid sequences in two or more collections of nucleic acid molecules, the method comprising:

(a) providing an array of modified polynucleotides bound to a solid surface, each said modified polynucleotide comprising a determinable nucleic acid;

(b) contacting the array of modified polynucleotides with a first collection of labeled nucleic acid comprising a sequence substantially complementary to a nucleic acid of said array, and detecting hybridization of the first collection of labeled complementary nucleic acids to nucleic acids of said arrays;

(c) removing said hybridized nucleic acids from said array by incubation of the array with an acid solution of pH 1-2;

(d) contacting said array with a second collection of labeled nucleic acid comprising a sequence substantially complementary to a modified polynucleotide of said array; and

(e) detecting hybridization of the first and second labeled complementary nucleic acids to nucleic acids of said arrays;

wherein the modified oligonucleotides are characterized by a pH stability of at least one hour at 37°C at a pH in a range of about 0.5 to 6 and a nuclease resistance of at least twice that of a naturally occurring oligonucleotide having the same sequence and number of bases.